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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/592,991

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EXAMINER

HEPPERLE, STEPHEN M

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/592,991	<b>Applicant(s)</b> KREBS, CLEMENS	
	<b>Examiner</b> Stephen M. Hepperle	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4 and 6-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 6-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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The drawings are objected to because in Fig. 1, the number “3” is used to indicate both the second housing part (correct) and the first housing part (which is also correctly labeled “2”). It is believed the “3” just below the “2” should be deleted. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 1, 4, and 6-23 are pending.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 1, 4, and 6-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitation near the end of claim 1, “the first housing part is pressed into the first end of the second housing part” is seen as new matter. This rejection is based on an interpretation of the language that the second housing part fits at least partially INSIDE the first housing part.

If this new matter rejection is successfully traversed, the drawings may need to be corrected in accordance with 37 CFR 1.83(a).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 4, and 6-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The last five lines newly added to claim 1 are unclear. The claim states that the overall length is determinable between a second end of the second housing part, but fails to say where the other end of the valve is. In other words, only half of the standard of comparison (“between”) is present. It is also unclear what is meant by “the pressing-in depth”

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 13-17, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Gute (5,107,890). Gute shows a first housing part which can be threaded into a valve carrier with threads 34. A second housing member with a sealing surface 64 for closing body 26 is press fit into the first member, thus determining the position of the ball 26 with respect to the valve carrier, and which depending on how far it is forced in, determines the overall length of the valve assembly. Regarding claim 13, note a small unnumbered stop shoulder in the first part. The figures also show a small outwardly curved region where the second member is initially inserted (claim 15). The limitation of claim 14 is seen as common to almost all engineering materials, especially plastic and metal. The second member has a central bore, and the first has a recess for receiving ball 26 (claims 16-17).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6-7, 12-14, 16-19, and 22-23 as understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarnay et al. (5,050,633) alone or in view of Burke et al. (6,189,561). Tarnay shows valve comprising a first housing part 14 holding a closing body 22. Second housing part 24 is fit into the first housing part, provides a seat for valve 22, and seals against the overall housing (valve carrier) into which the valve is inserted. The first housing part includes a flange and o-ring just below the numeral 34 in the figure. Burke shows a similar cartridge valve, where the seat (second housing part) 54 is secured to a first housing part 52 by a press fit (col. 6, lines 25-35). Part 52 is also press fit into part 32. It would have been obvious to secure the Tarnay seat 24 to the first housing part by a press/interference fit, to keep entire cartridge in one piece when removed or installed and to eliminate the need for threads or welding. Alternatively, it would have been obvious in view of Burke to do so. Regarding claim 12, it would have been obvious to mark the Tarnay cartridge as an aid to see how deep the cartridge fits in an overall housing, and/or to label the cartridge with any other marking such as a part number. Regarding claim 13 note the stop surface at 24. Regarding claim 14, materials that are press fit together inherently must be plastically deformable for the press fit to work. Regarding claims 16-19, note orifices 30 in the seat piece and plural radial openings 28 in the first housing part 14. Regarding claim 23, the overall cartridge screws into the valve carrier.

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Claims 1, 6, 7, 12-14, 16-18, and 21-23 are rejected under Parker et al. (2,415,258) in view of Gute. Parker shows a first housing part 11 which can be threaded into a valve carrier 5 with threads 34. A second housing member 15 with a sealing surface for closing body 18 is fit into the first member. Ball 18, in combination with cup, is seen as the closing body.

Alternatively, it would have been obvious to secure the ball to the cup, such as by welding, to make for less parts to handle for assembly. Gute teaches assembling the second member into the first by a press fit. It would have been obvious to use a press fit to fit the second member in Parker as taught by Gute, to hold the entire assembly together with minimal parts and machining. Use of a press fit would help determine the position of the ball 18 with respect to the valve carrier, and which depending on how far it is forced in, determines the overall length of the valve assembly. Regarding claim 13, note a small unnumbered stop shoulder in the first part. The figures also show a small outwardly curved region where the second member is initially inserted (claim 15). The limitation of claim 14 is seen as common to almost all engineering materials, especially plastic and metal. The second member has a central bore, and the first has a recess for receiving ball 26 (claims 16-17). Regarding claim 21, the cup inherently provides damping due to its clearance fit. Regarding claims 22-23, the sealing surface of the second housing part is at its upper end, and the first part threads into valve carrier 5.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gute in view of Cook (2,412,205). Cook shows a screw in valve similar to Gute, with a seal 10 provided at bearing surface 9. It would have been obvious in view of Cook to provide a seal at the top of the threads of Gute where the conical sealing surface would screw into a valve carrier.

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Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (2,415,258) in view of Gute as applied to claim 18 above, and further in view of Cook (2,412,205). Cook shows a valve similar to Parker, with axially spaced radial outlets 29. It would have been obvious to provide the Parker valve with additional outlets spaced above the existing outlets 28 to allow progressive exhausting of flow as taught by Cook. Regarding claim 19, the area between the ball and cup of Parker is seen as the groove, which would match a second set of outlets above the first.

Claims 1-13, 16-20, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knapp (6,298,879) in view of Barton (5,511,831). Knapp shows a housing first part 1 receiving a second part 10 in a fixed manner. The second part includes valve seat 12 and has two outer diameters that fit in two diameters in the main (first) part. Member 12 is press fit into member 10. Barton teaches securing two fluid handling components together by press fitting, where there is a stepped diameter (like Knapp), with a conical transition between the diameters. It would have been obvious to use a conical transition between the diameters in the Knapp device as taught by Barton, and to use a press fit as taught by both references to improve sealing quality and allow assembly with fewer parts and/or machining. The overall valve is threaded into a housing so that a flange at o-ring 4 stops the valve, as well as o-rings 16 at the bottom of the seat member.

Applicant's arguments filed 12 January 2009 have been fully considered but they are not persuasive. Applicant's argument (page 10) that the length of the valve is always adapted automatically to the specific valve carrier is not seen in the claims. Such a concept may be better suited to a method claim. The structure recited is still seen in Taney (where applied). The fact



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that the first housing part is also a bonnet is not seen as disqualifying. The connection of the various parts, now positively recited as a press fit, is shown by newly applied references.

Regarding Barton, it still shows a press fit for fluid connection, doubled for better sealing. It is seen that one of ordinary skill in the art would view pipe coupling art as useful for other fluid devices, including valves. Petursson and Stein have been withdrawn as references.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen M. Hepperle/  
Primary Examiner, Art Unit 3753